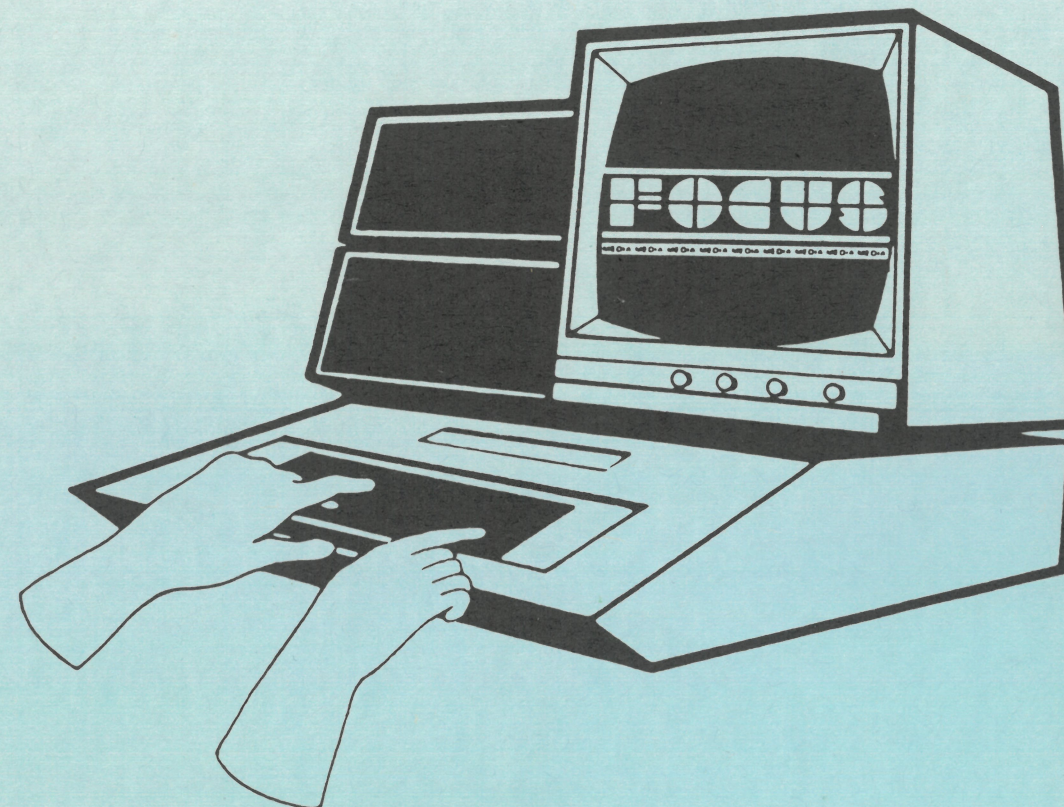


Cher
Checked June 4/91.

THE
FOCUS MEDIA
LESSON PLANNER



**MEASURING
ECONOMIC
ACTIVITY**

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MEASURING ECONOMIC ACTIVITY

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INTRODUCTION

This program is designed to assist you in the achievement of six instructional goals:

1. To understand the basic operation of the U.S. economy
2. To motivate students to research and analyze levels and kinds of economic activity at various times in history
3. To provide students with experience in the use of a computer as a tool for studying historical or contemporary economic activity in the U.S.
4. To familiarize students with the interpretation of quantitative measures of economic activity
5. To allow students to visually analyze the results of their research
6. To stimulate and motivate student interest in the study of economics

This program can be used in any course treating the subject of the American economy. The program is designed to be used for analyzing historical or contemporary economic activity. The following are only a few of the possible applications:

AMERICAN HISTORY: America's economic system, the dynamics of American economic growth, the Business Cycle, the economic impact of selected historical events.

ECONOMICS: Economic Indicators, Unemployment, Inflation, Real and Current Gross National Product, Stock Market Prices, the dynamics of the American economy, Quantitative Analysis of economic activity.

The possibilities for integrating this program into your courses are numerous. You and your students can use the program in many different curriculum configurations. The program has been designed for maximum flexibility of use so that you can easily adapt it to your own specific curriculum and teaching style. A reproducible master for a student activity sheet is provided. Students record their research on their sheets before entering data on the computer.

PROGRAM OUTLINE

"Measuring Economic Activity" integrates traditional library research with modern computer technology. You can assign your students a research project on any measure of economic activity. The students' research can involve historical or contemporary periods from two months to thirty years or comparable units. After recording the results of their research on worksheets provided in this Lesson Planner, students enter data into the computer.

The computer creates an instant visual presentation of the data in the form of a graph. Each student's research is thus represented as a line graph. Once this is done, the student can obtain a print-out of the graph and, if the teacher or student wishes, each student's data can be saved on the disk. The teacher has access to all of the students' data through the use of a password (see page 17). The password (TUTOR) can be altered at the discretion of the teacher. Once the student finishes entering her data, she can study each economic indicator by itself or she can create a visual comparison by having the computer overlay graphs of different indicators that she has researched.

FOR THE FIRST TIME USER

This section is designed for you if this is your first time using these programs.

HARDWARE REQUIREMENTS

This program is designed to run on the Apple //, Apple // plus, Apple //e or //c computer. In addition to the computer, the following hardware is necessary:

- * a disk drive
- * a monitor (preferably color although a monochrome may be used)
- * OPTIONAL: a printer for printing graphs and data

START-UP PROCEDURES

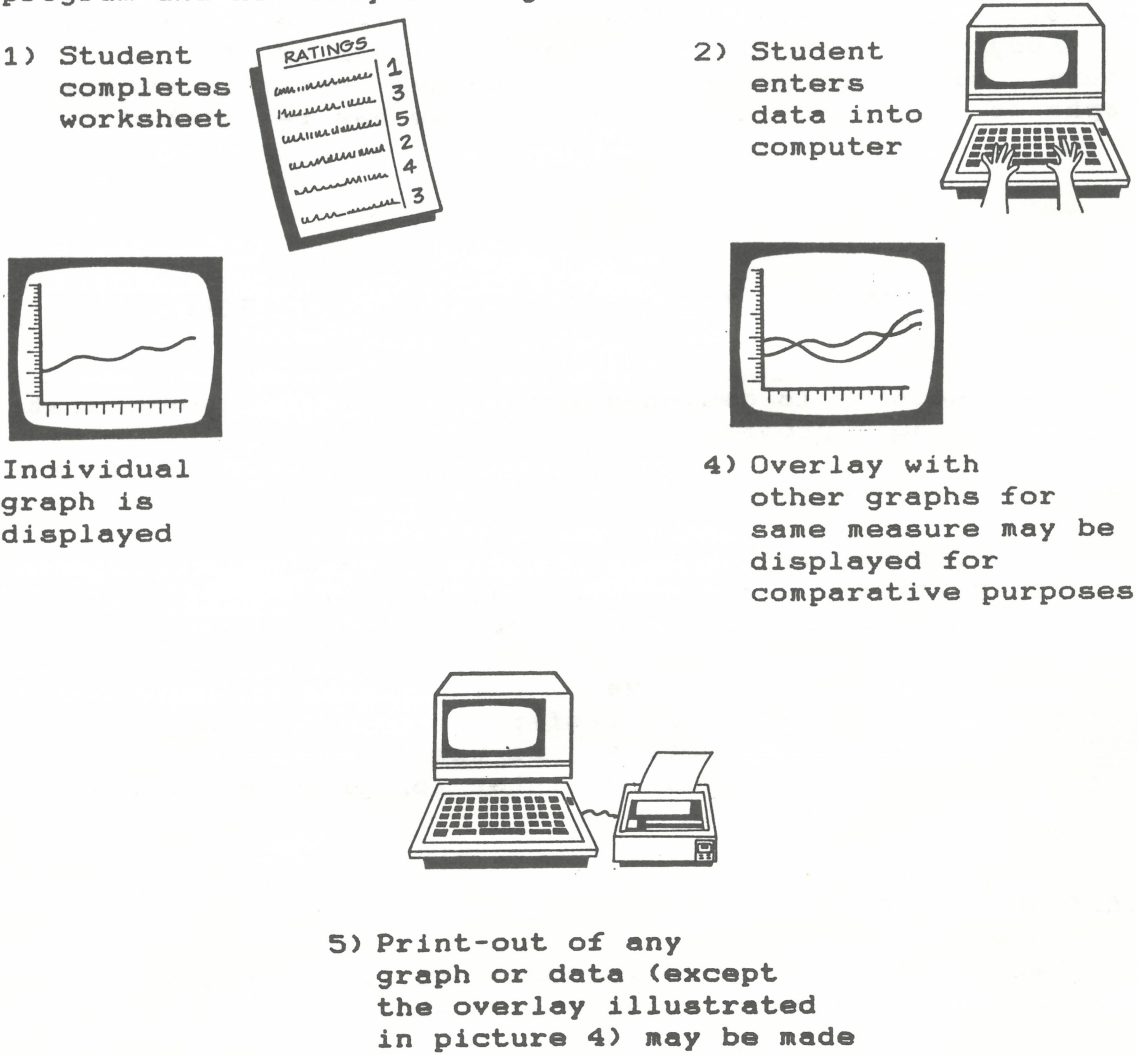
See the enclosed card for complete instructions for starting up the program on your computer.

PROGRAM DESIGN

Ideally, your students will come to the computer with completed "Measuring Economic Activity" worksheets. (This reproducible worksheet may be found at the end of this Lesson Planner.) Have them carefully read the "Measuring Economic Activity" booklet and devote some class time to discussion of each criterion before the actual research gets underway. Encourage your students to use a wide range of reference materials to research each economic measure.

On pages 19 and 20, you will find a General Unit Plan which may help you to incorporate the specific features of this program into your curriculum and teaching style. You may wish to combine elements from the Unit Plan or use one or more of them; the choice is yours.

These simple drawings illustrate the components of the program and how they fit together:



PROGRAM OPERATION

TO THE TEACHER:

We highly recommend that before giving this program to your students, you go through the entire program yourself. Try out several options so that you will be prepared to answer your students' questions. The details that follow are designed to literally "walk" you or your students through the program. You may wish to reproduce the next section (pgs. 5 through 15) so that each student will have a copy to refer to while working at the computer.

PROGRAM OPERATION

- A. The student begins entering data by typing his or her full name. A maximum of 13 characters each are allowed for both first and last names. Students should use their actual full names because data is "saved" or stored under individual student names and may later be recalled by a teacher who wishes to review a student's work. The RETURN key must be pressed after the first name and last name are typed in. NOTE: The program will display the message, "One moment, please...". Please be patient as the program checks to see if files have previously been stored under the name entered. Depending on how many students are on file, this operation may take as long as 30 to 40 seconds.

The program then asks:

- B. -----
How many graphs of economic activity do you wish to make?

Press 1, 2, 3, or 4.

A maximum of 4 graphs may be entered. The student may choose to make 1, 2, 3, or 4 graphs.

- C. -----
Type the number of the first measure from the list of measures of economic activity shown below. You may choose to graph the same measure more than once. Then press <RETURN>.

1. GNP
 2. CONSUMER PRICE INDEX
 3. UNEMPLOYMENT
 4. DOW JONES AVERAGE
 5. PERSONAL INCOME
 6. HOUSING STARTS
 7. RETAIL SALES
 8. INDEX OF INDUS. PROD.
 9. PRODUCER PRICES
 10. INFLATION RATE
 11. OTHER
-

The student then presses the number of the economic measure she or he wishes to graph. If the measure is not found on the list, then the student presses number 11, "Other."

If 11 is chosen, then the message on the screen reads:

- D. -----
Type in the name of the first economic measure you wish to graph, up to 20 letters.
Then press <RETURN>.

After the economic measure is chosen from either the number list or is typed in, the screen then reads, for example:

- E. -----
For the first economic measure you chose
"INFLATION RATE."

Please fill in up to 21 letters or numbers to complete the title.

The title of the graph is
INFLATION RATE:

NOTE: The number of letters allowed (in this case 21) depends on the number of letters in the economic measure chosen. ("INFLATION RATE" 14 characters, allowing 21 more characters in the title the user will type.)

ALSO NOTE: If an economic measure is to be measured in billions or trillions, this is the opportunity to include this information in the title.

Then the screen asks:

- F. -----
Is your data measured in %?
Press Y or N:

If "yes" then:

- G. -----
Is the above correct? (Y/N)

Whenever this question is asked during the program, an opportunity is provided to make any required corrections on the screen. If an incorrect name, spelling, or choice has been entered, type "N." The screen will clear, and an opportunity to re-type the information will be provided. If no corrections are needed, simply type "Y."

MEASURING ECONOMIC ACTIVITY

If your data is not measured in %, press "N," then the screen reads:

- H. -----
Please choose the kind of numbers which you will enter:

A. Numbers with decimals (0.00 through 99.99)
B. Numbers (0 through 9999)

- I. -----
Is the above correct? (Y/N)

After the student has completed the first set of screens, then the student will repeat screens C-I for each economic measure he or she wishes to graph.

NOTE: The student may make more than one graph for each economic measure. For example, she may make three graphs for GNP and one for Inflation Rate, or 4 graphs for Dow Jones Average, or 1 for each of the 4 different economic measures. The graphs may be tailored to the individual student's research needs.

At this point, the computer will display the titles of the graphs the student wishes to make. For example:

- J. -----
1. Inflation.....1952
2. Inflation.....1955

Is the above correct? (Y/N)

If yes, then the screen reads:

- K. -----
You are now ready to enter your data. These are the measures you have chosen to study.

1. Inflation.....1952
2. Inflation.....1955
3. Exit the program.

Which will you be working on now? (1-3)

From this screen, the student chooses the measure that he or she wishes to work on. This is done by pressing the number corresponding to the title. Please note the last option, "Exit the program." If this is pressed, the program will go back to the beginning.

MEASURING ECONOMIC ACTIVITY

- L. At this point, the student is now ready to input data from his Student Worksheet where he has recorded his data.

Do you wish to enter data in
Months, Years, or Other?

Press <M>, <Y>, or <O>

- M. If the student chooses Months, the screen then asks, for example:

Enter starting year.
Then press <RETURN>. 1952

Enter starting month. (1-12)
Then press <RETURN>. 1

Enter number of months. (2-30)
Then press <RETURN>. 6

January, 1952 thru June, 1952

Is the above correct? (Y/N)
GNP.....1952

- N. If the student chooses Years, the screen then asks:

Enter starting year.
Then press <RETURN>. 1952

Enter number of years. (2-30)
Then press <RETURN>. 2

1952 thru 1953

Is the above correct? (Y/N)

- O. If the student wants to measure financial quarters or some measure that does not fit into a reading of months or years, she should choose <O>. Then the screen will read:

How many readings will you be
graphing? (2-30)

Then press <RETURN>.

MEASURING ECONOMIC ACTIVITY

NOTE: The student may wish to include the year in the graph title, i.e., GNP: 1985.

P. At this point, depending on the above choices, a table is displayed.

No.	Month	Percent	No.	Month	Percent
1.	1	14			
2.	2	12.5			
3.	3	13			
4.	4	15			
5.	5	16.5			
6.	6	14.8			

INFLATION RATE-----1952

Any corrections? (Y/N) _

No.	Year	Percent	No.	Year	Percent
1.	1952	17			
2.	1953	18.5			

INFLATION RATE-----1952

Type your information, then press <RETURN>.

No.	Time	Percent	No.	Time	Percent
1.	1	14			
2.	2	12.5			
3.	3	13			
4.	4	15			
5.	5	16.5			
6.	6	14.8			

INFLATION RATE-----1952

Type your information, then press <RETURN>.

Type your information, then press <RETURN>.

MEASURING ECONOMIC ACTIVITY

If the student has chosen to measure the graph in values other than percent, (screens F & G), then the screen will appear:

No.	Time	Value	No.	Time	Value
1.	1	185			
2.	2	178			
3.	3	166			
4.	4	173			
5.	5	188			
6.	6	140			

INFLATION RATE-----1955

Type your information, then press <RETURN>.

No.	Month	Value	No.	Month	Value
1.	1	185			
2.	2	178			
3.	3	166			
4.	4	173			
5.	5	188			
6.	6	140			

INFLATION RATE-----1955

Type your information, then press <RETURN>.

No.	Year	Value	No.	Year	Value
1.	1955	165			
2.	1956	170			

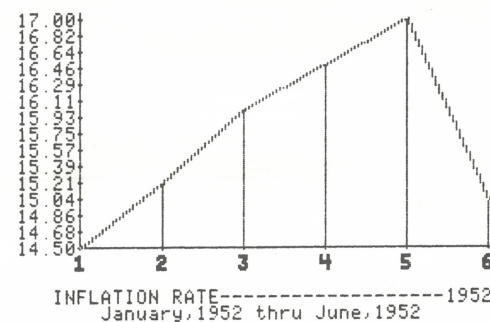
INFLATION RATE-----1955

Type your information, then press <RETURN>.

The student is ready to transfer the information from the "Measuring Economic Activity" worksheet to the computer. To do this, the student simply enters the information into the "Percent" or "Value" column. The "RETURN" key must be pressed after each numerical entry. After all the entries are made, the computer will ask:

Any corrections? (Y/N)

At this point, the student should compare the entries on the screen with those on his worksheet. If there are any discrepancies, a value rating may be changed by pressing "Y." Then the new value number corresponding to the criterion that should be changed must be typed in. The new entry will be recorded. Again, the "RETURN" key must be pressed after each numerical entry. When the student responds "N" to the question, "Any corrections? (Y/N)," a graph generated from this data will appear.

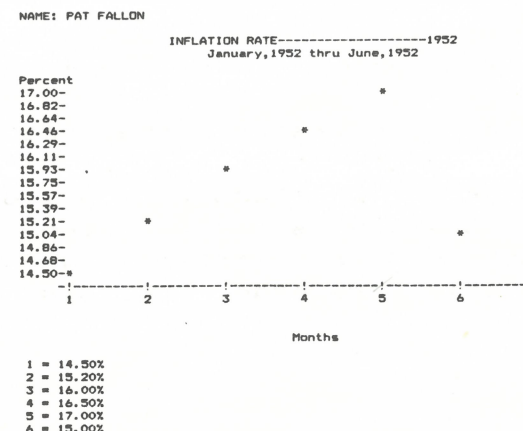


Would you like a print-out? (Y/N): _

Q. The vertical axis represents the VALUES and the horizontal axis represents the PERIODS, such as months, years, or time.

Would you like a print-out? (Y/N)

If "Y" is pressed, the question, "Is your printer ready to use? (Y/N)" will appear. (Note that data will be lost if a print-out is attempted and the printer is not properly hooked up.) If the printer is connected, the print-out will commence. The print-out is simply a paper version of the graph and appears as follows:



If "N" is answered to the question "Would you like a print-out?" the program will return to the menu of graph choices.

The student may continue in this fashion and print out each graph that is created.

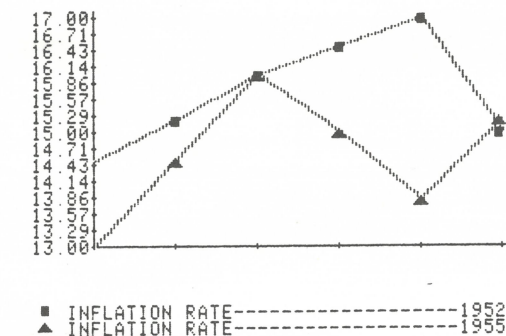
The student may then choose to exit the program.

After exiting, if the student has created more than 1 graph, the next screen will ask:

Do you want to see an overlay? (Y/N)

This "overlay" option is present when the student has entered data for more than one graph.

If "Y" is pressed, the overlay will appear:



Press <Space Bar> to continue.

All the graphs, up to and including 4 graphs that the student has made, will appear on one screen. After the overlay displays, pressing the SPACEBAR will bring the question, "Do you want to see an overlay? (Y/N)" back to the screen. The student may view the overlay any number of times until choosing "N" to answer "Do you wish to see an overlay?"

NOTE: The student may print out each graph individually, but cannot obtain a print-out of the overlay screen. The print-outs may be put side by side for comparison purposes.

Then, the computer will ask:

Do you want to save any data? (Y/N)

MEASURING ECONOMIC ACTIVITY

The student may wish to save data or exit the program.

If "N" is pressed, data will not be saved and the program will automatically return to its beginning.

If "Y" is pressed, the student will be asked:

Do you want to save #1? (Y/N)

1. INFLATION RATE.....1952

The student decides whether or not to save data for this particular graph and is then asked this question for each graph he or she has created. Now the student's evaluations are recorded on disk and may be seen at a later time by either student or teacher. (For instructions on how to access this work, see page 17.)

R. If a student would like to re-enter data for a graph that has already been created, the student may press the number corresponding to the highlighted graph's name.

These are the measures you have chosen
to study.

1. INFLATION RATE.....1952
2. INFLATION RATE.....1955

3. Exit the program.

Which will you be working on now? (1-3)_

When #1 (in this case) is pressed, the question will appear:

Do you want to re-enter the data? (Y/N)

MEASURING ECONOMIC ACTIVITY

If "Y" is chosen, the program will proceed to the first data entry screen and the student may enter new values. The program will proceed as described in Sections L through R.

If "N" is chosen, the graph will display, giving the opportunity to review her or his data. The program will proceed as described in Sections L through S.

QUESTION:

WHAT IF A STUDENT SAVES DATA AND COMES BACK TO USE HIS OR HER WORK ON ANOTHER DAY?

Once data has been saved, a student may retrieve his or her work at a later time in the following way:

HOW TO ACCESS YOUR WORK

S. First, the student must type in his or her name exactly as it was originally entered. The following screen will appear:

You have (1-4) sets of data saved on the disk.

Enter your choice: (1-2)
1. Use the data
2. Start over

If option 1, "Use data," is chosen, the following screen will display:

These are the measures you have chosen to work with.

1. INFLATION RATE.....1952
2. INFLATION RATE.....1955
3. Exit the program.

NOTE: In this instance, data has been entered for two graphs. This screen will display if at least one, but less than four graphs have been entered.

Do you want to add another? (Y/N)

The student may, by pressingf "Y," add another set of data to his or her file. The program will return to the frame with the list of measures.

The student may enter titles for up to 4 graphs.

After adding more graph titles:

These are the measures you have chosen to study.

- 1. INFLATION RATE.....1952 <-- These are
- 2. INFLATION RATE.....1955 <-- highlighted
- 3. UNEMPLOYMENT.....1952 since data
- 4. UNEMPLOYMENT.....1955 has been
- 5. Exit the program. entered for each one

Which will you be working on now? (1-5)

If #1, "INFLATION RATE.....1952" is pressed, the student will be given the opportunity to re-enter data for this graph.

The same opportunity will be presented if graph 2 is pressed since data has been entered for this graph. If #5, "Exit the program," is chosen, the student will be presented with "Do you want to see an overlay? (Y/N)" and then "Do you want to save any data? (Y/N)"

NOTE: The student, before exiting the program, must save the data he or she has on file. Otherwise, the data will be lost.

If option 2, "Start over," is chosen, the following will display:

How many graphs of economic activity do you wish to make? Press 1, 2, 3, or 4.

The student may now enter as many as 4 new graphs. (The graphs which were on file have been erased from the student's file and the student may now start from the beginning.)

QUESTION:

WHAT IF A STUDENT HAS ENTERED 4 SETS OF DATA AND WISHES TO ENTER MORE WITHOUT DELETING THE FIRST SET OF 4?

In this case, the following may be done:

A student may enter additional data under a different name (even an alternative spelling of either the first or last name will do). This will work because the computer will only find data saved under a name that is spelled exactly the way it was entered when the data was originally saved.

PROGRAM OPERATION

The following pages constitute directions for using the "Teacher" or "TUTOR" Menu. This information is presented separately from the program operation section so that functions such as file deletion or file inspection may be used exclusively by the teacher.

TEACHER OR TUTOR MENU

- A. When the program asks for a full name, type in the word TUTOR. The following menu will display:

 MAIN MENU

- A. See student list
 B. Purge student file
 C. Change password
 D. Exit

Enter your choice,
 and then press <RETURN>.

If "A" is pressed, a screen will display that sequentially lists all the students who have saved data for one or more graphs. This student list also allows the teacher to take note of how the students have entered their names (in some cases an abbreviated version may have been necessary). NOTE: As many as 99 different students may be kept in the student list. If student number 100 attempts to enter his or her name, at the beginning of the program, a message will display explaining that the file is full and that a number of student files must be purged. At that point, refer to the following option.

B. Purge Student File

If "B" is pressed, a "mini" menu will display as follows:

- A. Purge entire file
 B. Purge a single student's data
 C. Exit

Enter your choice:

If "A," "Purge entire file" is pressed, the message "Purging" will appear under "Enter your choice." When the "purge" is complete, the program will return to the Main Menu.

If B, "Purge a single student's data," is chosen, the following will display:

 Enter the student's first name and press RETURN:

 Enter the student's last name and press RETURN:

After deleting, the program returns to the Main Menu.

NOTE: If you type in a student name to be purged, but the spelling is incorrect (or different from the spelling the student used), the program will tell you that there is no such student on file.

If C, "Exit," is pressed, the program will return to the Main Menu.

C. Change Password

If "C" is pressed, the following screen will display:

 Enter new password:

A maximum of 12 characters may be entered for the new password. (The left arrow key may be used to change a spelling during this new entry and before the RETURN key is pressed.) When the RETURN key is pressed, the drive light will come on and the new password will be recorded. The program will then return to the Main Menu.

NOTE: The new password must be entered each time you wish to get to the "TEACHER" Menu from the beginning of the program. If the new password is forgotten, there is no way to recall it. We therefore suggest that it be recorded and kept in a place accessible to you but not to your students.

D. Exit

If "D" is pressed, the program will return to its beginning.

GENERAL UNIT PLAN FOR THE TEACHER

This general unit plan is intended to serve as a guide to suggest ways in which this program can be incorporated into existing courses in economics, American History, or American Studies. You may wish to use it in its entirety, or you may wish to use specific lessons or questions as they pertain to your own particular curriculum.

First Week

(Use "Measuring Economic Activities" booklet and other references of your choice.)

Assignment: Have students begin their research projects using worksheets in this Lesson Planner.

- Lesson 1. Introduction to Measuring Economic Activity**
- a. Defining economic activity
 - b. Why measure economic activity?
 - c. What to measure in the American economy?

- Lesson 2. The Unemployment Rate as an economic indicator**
- a. Defining the unemployment rate
 - b. What is meant by "full employment"?
 - c. Implications of unemployment rates

- Lesson 3. The Rate of Inflation as an economic indicator**
- a. Defining the concept of inflation
 - b. Examining the causes of inflation
 - c. The Consumer Price Index as a measure of inflation
 - d. Consequences of inflation

- Lesson 4. Stock Prices as economic indicators**
- a. What are "stocks"?
 - b. How are stocks bought and sold?
 - c. What is the Dow Jones Industrial Average?
 - d. What causes fluctuations in the Dow Jones Industrial Average?
 - e. Understanding the implications of changes in the Dow Jones

- Lesson 5. Historical events and their impact on economic indicators**
- a. What kinds of historical events affect economic indicators? (i.e.- wars, elections, etc.)
 - b. Is there any correlation between particular events and rises or drops in the levels of economic indicators?
 - c. Can economic indicators predict future economic activity?

Second Week

(Use "Measuring Economic Activity" Graphing Disk)

- Lesson 1. Behavior of economic indicators in selected historical periods (NOTE: The teacher may use any periods of her or his choosing and for which data is available.)**
- a. World War I, 1914-1920
 - b. Great Depression, 1929-1940
 - c. World War II, 1941-1945
 - d. Vietnam War, 1963-1975

- Lessons 2 through 4. An examination and comparison of student generated data.**
- a. Use a large screen monitor to bring the computer into class and have students display their research for the entire class.
 - b. Use selected print-outs of student research to examine in class.
 - c. Encourage generalization and comparisons.

- Lesson 5. Summary and Evaluation**
- a. What was learned?
 - b. Validity of the method used (computer aided research)

MEASURING ECONOMIC ACTIVITY

NAME _____

DATE _____

CLASS _____

DIRECTIONS: Fill in your research information below for each specific time period (months, years, quarters, etc.) and economic measure (unemployment, GNP, etc.) and title for the economic measure (i.e., Unemployment, WW II 1941-42) you wish to graph.

ECONOMIC MEASURE	TITLE	YEAR MONTH TIME	PERCENT OR VALUE



MEDIA MEDIA MEDIA MEDIA MEDIA MEDIA MEDIA MEDIA MEDIA

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